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ALBARCO
BACU
Cariniana pyriformis Miers
Family: Lecythidaceae

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The genus Cariniana,² to which albarco belongs, is made up of 10 or more species of large trees that occur from Brazil to Venezuela and Colombia (9).³

Albarco, or bacú as it is called in Venezuela (Maracaibo region) (6), is the chief export timber of the family Lecythidaceae. It has been exported, chiefly from Cartagena, in limited amounts to Europe, particularly to France and England (2, 7), and to the United States for many years (9). Albarco is very similar to the Brazilian species known as jequitiba (chiefly C. legalis (Mart.) Kuntze) (9). Albarco was marketed under the misleading name "Colombian mahogany" at one time, but it is entirely unrelated to Swietenia and can readily be distinguished from it by its cellular structure (10).

The Tree

Albarco is said to be one of the most common trees in the forests of northern Colombia at elevations of 200 to 2,000 feet above sea level, with the best stands at 500 to 1,000 feet, on the lower slopes and in the well-watered valleys (1). This species produces some of the largest and tallest trees in

¹Maintained at Madison, Wis., in cooperation with the University of Wisconsin.

²This genus is related to Couratari and Allantoma.

³Underlined numbers in parentheses refer to the list of numbered references at the end of the article.

the Colombian forests, up to 125 to 175 feet in height and 2 to 5, rarely up to 8, feet in diameter, with cylindrical clear lengths of 50 to 80 feet above the trees' large buttresses (1, 7, 10).

The bark is very fibrous and is used by Colombian natives for rough cordage (9).

The Wood

Color

The thick sapwood is oatmeal color and not very sharply defined. It shades into yellowish- or pinkish-brown. The heartwood is reddish- or purplish-brown, sometimes with dark streaks. The color tends to fade on exposure (1, 3, 7, 9).

Grain, Texture, and Figure

The grain may be straight or interlocked. The texture is medium (3, 9). Albarco may be attractively figured (9, 10).

Luster

Albarco may show a medium to high luster (3, 7). It polishes well (1).

Odor and Taste

Albarco has no distinct odor or taste (3).

Weight

The recorded weight of albarco wood is 31 to 43 pounds per cubic foot; the recorded specific gravity is 0.50 to 0.70 (air-dry) (9).

Mechanical Properties

Locally, albarco is rated as strong, tough, and moderately hard and heavy (1).

In some U. S. Navy tests (11), albarco plywood gave higher values in mechanical properties than mahogany and had lower moisture absorption.

Seasoning and Shrinkage

With careful seasoning, albarco does not warp, check, or shrink excessively. It has good dimensional stability when manufactured, as indicated by its tendency to low absorption of moisture (2, 9, 10, 11).

Durability

Deeply colored specimens of albarco are reported to be resistant to decay (9), and, locally, engineers report the wood to be termite resistant.

Workability

Apparently, wood grown in different localities shows considerable variability (1, 9), since there are conflicting statements on the workability of albarco. While there are reports of considerable difficulty in sawing and machining albarco (4, 5), there are also statements (1) that no trouble was experienced and that the wood works well, takes a filler readily, finishes smoothly, and takes a high polish (1, 3, 9, 10).

The principal difficulty with albarco occurs when power machinery is used instead of hand tools in cutting lumber or machining it. Some albarco apparently contains considerable mineral matter (3, 4, 5) that dulls tools. Suggested remedies for overcoming difficulty in manufacture are the use of special saws (for example, saw teeth tipped with tungsten carbide or "Stellite") and the use of slower speeds ("heavier" feed rate) than usual in cutting.

Veneers are said to be cut without difficulty by both the rotary and slicing methods (9), and workers using hand tools are said to find the wood easy to work.

Uses

Albarco is used locally to some extent for heavy planking and general construction (3, 7, 8). Because it has a superficial resemblance in texture and color to mahogany, it has been marketed as a cabinet and finishing wood. Use of albarco for shipbuilding is also reported (12).

Availability

Albarco is reported to occur in considerable quantity (9), so that means for overcoming recognized drawbacks might well lead to profitable utilization of the species.

Structural Features

Growth rings vary from distinct to indistinct in albarco (3, 10).

The pores or vessels are readily seen and may contain tyloses.

Crystal chains occur in the wood parenchyma. The tangential bands of parenchyma cells, as seen on a smooth end-grain surface, form numerous closely spaced, concentric lines that aid in distinguishing albarco from mahogany (3, 7, 10).

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